DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

Bay Area Branch
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Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 13.28

WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: WIR-010450
Date Inspected: 23-Nov-2009

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: Oregon Iron Works Clackamas, Or.

OSM Arrival Time: 600
OSM Departure Time: 1830
Location: Clackamas, OR

CWI Name:	Mike Gregson, Jose Salazar	**CWI Present:**	☑ Yes ☐ No
Inspected CWI report:	☐ Yes ☑ No ☐ N/A	**Rod Oven in Use:**	☐ Yes ☐ No ☑ N/A
Electrode to specification:	☑ Yes ☐ No ☐ N/A	**Weld Procedures Followed:**	☑ Yes ☐ No ☐ N/A
Qualified Welders:	☑ Yes ☐ No ☐ N/A	**Verified Joint Fit-up:**	☑ Yes ☐ No ☐ N/A
Approved Drawings:	☑ Yes ☐ No ☐ N/A	**Approved WPS:**	☑ Yes ☐ No ☐ N/A
		Delayed / Cancelled:	☐ Yes ☑ No ☐ N/A

Bridge No: 34-0006
Component: Hinge K Pipe Beams

Summary of Items Observed:

The Quality Assurance Inspector Sean Vance arrived on site at Oregon Iron Works, Inc (OIW) in Clackamas, OR, to randomly observe the in process welding of the Hinge K Pipe Beam assemblies. The QA Inspector arrived on site to randomly observe the OIW Quality Control (QC) Inspectors in process and completed visual and nondestructive testing. Upon the arrival of the QA Inspector the following observations were made:

Hinge-K Pipe Beam Assembly 102A-3: 11/23/09
a111-3 Forging to a110-3 Base Plate
QA Inspector noticed that the partial joint penetration and fillet welds were previously completed, on the HPS 485W stiffeners and OIW production personell were in-process of performing weld clean-up and occasional FCAW on the weld joints, identified as WJ#'s W1-01 thru W1-163. QA Inspector spoke with QC Inspector Jose Salazar and Mr. Salazar explained that OIW welder #O6, Mr. Tim O'Brian and #T23, Mr. John Tellone were continuing to grind the weld start/stops, removing weld spatter and grinding all areas, which were previously marked by OIW QC Inspectors, per AWS D1.5 visual criteria and contract requirements. Mr. Salazar explained that minor underfill and a undersized weld had been previously measured on weld joints # W1-19 (piece mark c106/b106, 10mm fillet) and #W1-20 (c106/a107, 25mm fillet), that exceeded the limits of AWS D1.5 visual testing requirements and required FCAW fill passes. Mr. Salazar, explained to QA Inspector that QC was present during the FCAW repair and had recorded average, in-process welding parameters of 262 amps/26.2 volts, 10 i.p. m. travel speed, with a pre-heat temperature of approximately 400 degrees Fahrenheit (204 C). Mr. Salazar explained that 100% magnetic particle testing will be performed, on the above mentioned weld joint, after a minimum 48hrs. cooling time, per AWS D1.5. QA Inspector noted that the welding procedure specifications (WPS 3049) was utilized for the in-process repairs and QA Inspector noted that welding parameters/pre-heat

temperatures appeared to in compliance with the above mentioned WPS's. See attached picture below.

Hinge-K Pipe Beam Fuse Assembly 120A-4: 11/23/09
a124-13 Half Fuse to a124-4 Half Fuse
QA Inspector arrived at OIW Vancouver, WA. to perform a blast inspection, on the interior of this fuse assembly 120A-4. See applicable TL6034, completed on this date, for details.

Summary of Conversations:
As noted above.
Comments
This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mohammad Fatemi (916) 813-3677, who represents the Office of Structural Materials for your project.

Inspected By:	Vance,Sean	Quality Assurance Inspector
Reviewed By:	Adame,Joe	QA Reviewer